

An Evidence Summary

Alcohol and Mental Wellbeing

The relationship between alcohol and mental wellbeing is complicated. Not least because both exist on a spectrum, from the occasional glass of wine to alcohol dependence, and from low mood to severe mental distress. However, we do know that the risk of mental distress is almost four times higher for people who drink heavily compared to those who do not, and that one in three people who report problems with alcohol also experience mental distress^{1,2}.

This Evidence Summary seeks to present insights into the relationship between alcohol use, mental distress and mental wellbeing based on published research. It highlights risk and protective factors for each and discusses challenges at different stages of the life course.

Alcohol and mental distress

Over 80% of New Zealand adults drink alcohol; with one in four drinkers doing so at hazardous levels³.

There are also increasing rates of mental distress. The 2019/20 New Zealand Health Survey showed that one in 14 adults had experienced psychological distress in the past month³. Earlier data suggest that four in five New Zealand adults (aged over 15) have had experience of mental distress either themselves or with someone they know⁴.

Significant problems with alcohol and mental distress are linked

Significant problems related to alcohol^a are consistently linked with significant mental distress^{1,5}. This includes symptoms, diagnoses and experiences of⁶⁻⁹:

- depression
- anxiety
- bipolar disorder
- schizophrenia
- conduct disorder
- post-traumatic stress disorder
- psychotic episodes
- suicide attempts.

Box 1. Definitions

Alcohol misuse

In this Evidence Summary, misuse includes alcohol abuse, dependence, and alcohol use disorders. As a result, it relates to repeated (likely chronic) maladaptive use of alcohol that continues despite persistent or recurrent health and social consequences¹⁰.

Low-risk drinking

New Zealand's current low-risk alcohol drinking advice for adults indicates that long-term health risks can be reduced by drinking no more than two standard drinks a day and 10 standard drinks a week (for women); or three standard drinks a day and no more than 15 standard drinks a week (for men); with at least two alcohol-free days every week. To reduce the risk of injury on a single occasion of drinking, the advice is to consume no more than four standard drinks for women and five standard drinks for men on any single occasion. But low-risk is not no-risk.

Hazardous and harmful drinking

Hazardous drinking refers to an established pattern that carries an increased risk of harming the drinker or others. A score of eight or more (8-15) on the Alcohol Use Disorders Identification Test^b (AUDIT) is typically used to indicate hazardous drinking³. Harmful drinking is often used for higher risk patterns, with AUDIT scores of 16-19.

a Alcohol Use Disorders (AUD) are included in the Diagnostic and Statistical Manual of Mental Disorders. However, for this Evidence Summary, AUD are discussed as levels of alcohol consumption rather than mental distress.

b A 10-item questionnaire that covers alcohol consumption, dependence and adverse consequences.

Box 1. Definitions

Mental distress

Experience of mental illness, a diagnosis relating to mental health (eg, anxiety, depression), and/or scores on psychometric tests that indicate some level of current psychological or mental distress¹¹.

Mental wellbeing

More than the absence of mental illness and more than feeling happy; it relates to feeling good, functioning well, experiencing high satisfaction with life, developing as a person, and having strong relationships¹². At Te Hīringa Hauora/Health Promotion Agency, wellbeing refers to 'that which people intrinsically value' and incorporates belonging, identity, and connection.

Low-level drinkers are more likely to start drinking more if they experience mental distress. Heavy drinkers are likely to continue drinking at high levels if they experience mental distress¹.

It is common to experience substance use problems and mental distress at the same time. The term 'dual diagnosis' was created to describe this. Particularly among adolescents, it is more common to experience dual diagnosis than substance use disorders on their own¹³.

Box 2. Quick facts: Dual diagnosis

- Compared to those who do not have problems with alcohol, people who misuse alcohol are^{5,14-16}:
 - 10 times more likely to misuse drugs/other substances (most commonly cannabis)
 - four times more likely to have an affective (mood) disorder (most commonly depression and bipolar disorder)
 - four times more likely to experience suicidal ideation
 - up to three times more likely to have an anxiety disorder (most commonly generalised anxiety disorder).
- The presence of either alcohol use disorder or major depression doubles the risk of the presence of the other¹⁷.
- The lifetime prevalence of alcohol misuse is up to 20% for individuals with schizophrenia⁸ and up to 50% for individuals with some personality disorders¹⁸.
- Psychotic episodes are more likely among those with prior experience of alcohol use disorders, and those who experience psychotic episodes also have increased odds of subsequent alcohol misuse⁶.

Levels of alcohol consumption below misuse are linked to mental distress

There is growing evidence that it is both alcohol misuse and lower levels of alcohol consumption that are connected to experiences of mental distress. While the patterns are less consistent than with alcohol misuse, there has been evidence that lower rates of consumption also increase risk for^{14,19}:

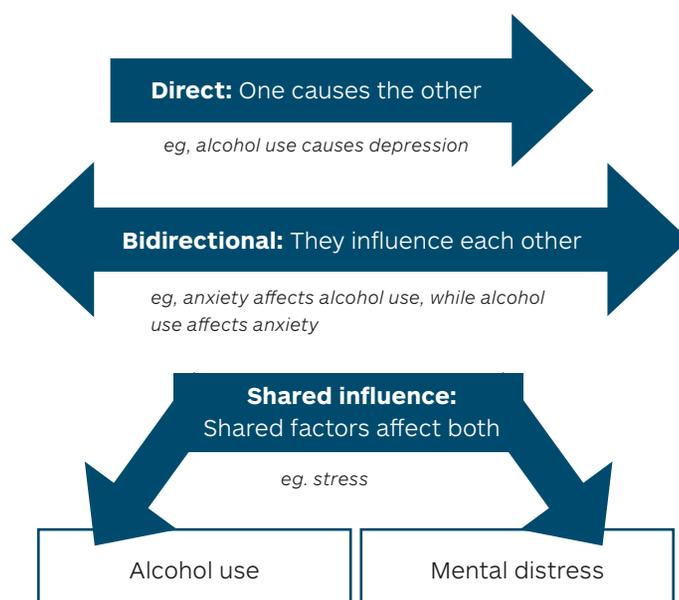
- depression
- anxiety
- self-harm
- suicidal ideation
- externalising behaviours (eg, impulsivity, aggression, inattention).

A recent review²⁰ examined how lower levels of alcohol consumption influenced mood and anxiety disorders, and excluded addiction. The evidence indicated that overall, drinking at harmful or hazardous levels negatively impacts mental wellbeing.

Alcohol and mental distress are connected through multiple (debated) pathways

There is support for a direct pathway from alcohol misuse to depression. But generally the relationship between alcohol and mental distress is complex, reciprocal, and not well understood.

Three main pathways between alcohol use and mental distress are debated^{1,21-23}:



Drinking behaviour and mental distress have common risk factors

Genetics

Genetic factors may increase vulnerability for both mental distress and addictions including alcohol misuse²⁴.

Brain function

Alcohol has an immediate effect on the central nervous system, affecting the brain's ability to function²⁵. Initially this might result in feeling relaxed and less inhibited.

However, as more alcohol is consumed, this affects emotion, learning, memory, attention, and mood²⁶.

The part of the brain responsible for problem-solving and decision-making is significantly affected by alcohol. This may cause loss of control, aggression, difficulty finding alternatives to risky behaviours, and a tendency toward impulsive behaviour²⁷.

Adverse childhood experiences

Adverse childhood experiences include abuse or neglect, bullying, serious childhood illness, death in the family, family conflict, and parental mental distress or substance use. In a large international study²⁸, people with at least four adverse childhood experiences (compared to those with none) were:

- four times more likely to experience mental distress
- twice as likely to report heavy alcohol use
- six times more likely to report problem drinking.

Stress

Stress can be caused by a range of experiences. This can include facing discrimination or prejudice, intergenerational trauma, cultural repression, being unable to express identity, lack of self-determination, isolation, unmet need for services, unemployment, lack of opportunities, and historical trauma^{4,29}.

When chronic stress occurs, it damages brain structures and has ongoing effects on brain function and physical health eg, alcohol damages immune function and increases inflammation³⁰. Conditions such as major depression and post-traumatic stress disorder have similar impacts on the brain, and these can be made worse by alcohol³¹.

Heavy alcohol consumption activates the brain's stress response which increases stress hormone levels in the brain and the body. This can present as a depressed mood or anxiety.

Heavy alcohol consumption can also cause disruption to family/social functioning, violence, arguments, loss of job

and financial worries. These stressors increase the likelihood of experiencing mental distress and the tendency to use alcohol for coping.

Coping

Drinking to cope or the 'self-medication hypothesis' is commonly used to explain the link between mental distress and drinking. In a large study from the United Kingdom (UK), almost 75% of participants with low mental wellbeing explained that they drank for coping reasons³². People may choose to drink to cope with emotions or to escape from other problems³³.

Physical health

Alcohol impairs general and social functioning, physical health, and the ability to complete activities of daily living³⁴; each of which may affect mental wellbeing. Managing symptoms or side effects of medications are additional motives for drinking.

Alcohol can have either stimulant or sedative effects. This means that alcohol can make both sleep and pain better or worse depending on the individual, the circumstances, and their drinking behaviours³⁵. For example, in the short-term alcohol might be used to promote sleep but alcohol misuse may cause sleep-related problems such as difficulties falling asleep, feeling sleepy during the day, or waking up during the night³⁶. The impact of alcohol on sleep is more pronounced for those with depression.

Others' drinking

Individuals exposed to heavy drinkers (ie, family, friends) are twice as likely to experience poor wellbeing (including anxiety and depression) than those who are not exposed³⁷.

Familial patterns of drinking affect young people's behaviour. When parents experience mental distress or misuse alcohol, it increases the risk that their children will have problems with alcohol in early adulthood^{38,39}. The risk is higher with mothers and increases if the individual has more than one parent misusing alcohol^{40,41}.

Box 3. Quick facts: Suicide^c and alcohol

- Alcohol dependence is a risk factor for suicide¹.
- Alcohol use has been associated with suicide risk in adolescents, young adults and older people^{42,43}.
- Acute alcohol use (3 to 24 hours prior to attempt) is linked to an increased likelihood of suicide attempt, with greater risk linked to heavier alcohol use⁴⁴.
- New Zealand data show that problems with alcohol or drugs are a more significant predisposing factor for suicide than depression^{45,46}.

Alcohol consumption and distress patterns vary across the life course

First 1,000 days (From pregnancy to age two)

Low to moderate levels of drinking during pregnancy may be linked with offspring mental health issues⁴⁷. A large UK study found that mothers who consumed any alcohol at 18 weeks' gestation had children with increased risk of depression at age 18 years⁴⁸.

A significant consideration at this stage of life is Fetal Alcohol Spectrum Disorder (FASD). FASD is a neurodevelopmental disorder, which refers to impacts on the brain and body caused by alcohol exposure during pregnancy. One in five women report drinking alcohol during pregnancy, with 13% of women continuing to drink after the first trimester⁴⁹.

There is limited information available about the prevalence of FASD in New Zealand. Based on international data, the Ministry of Health estimates that three in every 100 births may be affected⁴⁹. This would mean that i) around 46,000 New Zealanders may be affected by FASD, and ii) around 1,800 New Zealanders born each year will be affected⁵⁰.

Individuals with FASD experience challenges with daily living, requiring support with motor skills, physical health, learning, memory, attention, communication, emotional regulation, and social skills⁵¹.

Among individuals with FASD, there is increased prevalence of a range of developmental, attachment, and psychological conditions. These include anxiety disorders, affective disorders, psychotic disorders, conduct disorder, autism spectrum disorder, post-traumatic stress disorder, and suicidal ideation^{1,52,53}.

Young people

Late adolescence/early adulthood is a time when diagnosable mental distress often starts, and young people experiment with substances. This is typically a transition period with a lot of change¹¹.

Co-existence of alcohol misuse and mental distress can be as high as 53% among those attending youth-specific alcohol and other drug services⁵⁴. It is estimated that eliminating alcohol misuse could mean rates of mental distress decrease by up to 15% among young New Zealanders¹⁴.

Alcohol affects brain function, and for young people, high levels of consumption occur at a time when the brain is still developing²⁵. This means that adolescent brains are more vulnerable to the effects of alcohol, with impacts on decision-making abilities, personality, and regulation of feelings^{26,55}. The evidence is growing in this space, illustrating that alcohol has impact on not only functioning but brain structure.

The environment a child grows up in has a significant impact on their future. If parents experience mental distress or misuse alcohol, often that means children grow up in stressful circumstances which increases their own risk^{56,57}. A New Zealand study identified nine childhood and adolescent risk factors that influence substance dependence in adulthood⁵⁸. These included:

1. low socioeconomic status
2. long family history of substance dependence
3. a diagnosis of conduct disorder
4. depression
5. exposure to substances in early teens
6. frequent alcohol use in adolescence
7. daily tobacco use
8. frequent cannabis use
9. male gender.

Young people drink less frequently than older people, but at greater volumes. This also puts them at increased risk of acute harms compared to older people^{26,59}. For some young people, their teenage drinking patterns will impact their adult drinking behaviours and their experience of mental distress into late adolescence and early adulthood^{39,60}.

There is evidence that mental distress (including anxiety, depression, attention deficit hyperactivity disorder,

c For this Evidence Summary, suicide refers broadly to both deaths classified as suicide by a coroner (post-inquiry), and suspected self-inflicted deaths.

oppositional defiant disorder, conduct disorders) in childhood and/or adolescence is linked with later drinking patterns including persistent alcohol dependence in adulthood^{40,58,61,62}. It is therefore important to consider whether some of the risk factors that affect young people continue to be present throughout adulthood.

Midlife adults

As mentioned, early life experiences and behaviours during adolescence can affect alcohol consumption and mental distress into adulthood.

According to data from the New Zealand Health Survey, adults aged between 45 and 64 are more likely to have been diagnosed with a mood and/or anxiety disorder/ depression than either younger or older age groups³.

Over 86% of adults aged 45 to 64 report having consumed alcohol in the past 12 months; while almost 30% of those aged 45 to 54 report engaging in heavy episodic drinking at least monthly.

For midlife adults there is less developmental change than adolescents face, but there are often major life events that occur¹¹.

Interpersonal stress (eg, relationships, caregiving for children and older parents), occupational stress (eg, employment, promotion), and financial stress (eg, housing, debt) are particularly common during this period⁶³. Building financial and social resources during this time can be protective against mental distress and alcohol misuse.

Experience of health conditions and new medication use are additional factors that in some circumstances will lead to increased alcohol consumption, ie, drinking to cope. In other situations, these circumstances will motivate midlife adults to reduce their consumption.

Older adults (65-years-old and over)

New Zealand data indicate that older people are less likely to report experience of mental distress than younger people⁶⁴. Some people experience good mental wellbeing as they get older, finding more time to spend with loved ones or participating in enjoyable activities. For some older people alcohol consumption is connected to social engagement.

For others, there are significant experiences of loss that come from children leaving home, retirement, bereavement, loneliness, and physical health declines that affect pain levels, independence and daily functioning.

These changes can impact identity, belonging and connection^{65,66}. Sometimes people will consume alcohol to cope with these changes.

Older adults' changing physiology also means they have heightened sensitivity to alcohol which increases the risk of harms. There are additional risks due to co-morbidities and medication use. However, overall there is limited research looking at alcohol and older people's wellbeing.

While many older people are sceptical about the health risks, alcohol has been linked with a number of mental health consequences⁶⁷. For example, long-term heavy drinking is associated with increased risk of dementia and depression in older adults^{68,69}. For adults aged over 80, there is a link between increased alcohol consumption and higher anxiety⁶⁹. There is, however, also some indication that moderate levels of drinking (1 to 2 drinks per day) may be related to fewer depressive symptoms and better wellbeing when compared to long-term abstainers and heavy drinkers^{68,70}.

Box 4. Quick facts: Depression and alcohol

- Alcohol can mimic or heighten depressive symptoms⁷¹.
- Depressive disorders may be characterised as 'alcohol-induced' or 'independent' (ie, unrelated to alcohol); these are two distinct groups⁷².
- The relationship between alcohol and depression is more strongly linked to quantity of alcohol consumed per occasion than drinking frequency⁷³.
- Adolescents with major depressive disorders are 2.5 times more likely to have drunk four or more drinks in a row in the last 30 days (ie, drinking at levels of risk of alcohol-related harm)⁷⁴ compared to those without depression.
- Males with higher levels of alcohol misuse have nearly three times greater odds for depression than females⁷⁵.
- For older people there is less depression among those drinking at moderate levels than there is among non-drinkers or those who drink heavily⁷⁰.
- Māori with depression have more than 50% higher odds of screening positive for alcohol misuse compared with non-Māori/non-Pasifika⁷⁵.

Alcohol and wellbeing

People think alcohol helps them to 'feel better'

Multiple measures of drinking (ie, higher quantity, greater frequency, heavy episodic drinking, more frequent intoxication) have been linked with perceptions of wellbeing, especially among university students⁷⁶. This pattern holds for different measures of wellbeing.

Despite this trend, abstainers and low-risk drinkers consistently report higher mental wellbeing than those who drink at hazardous, harmful and dependent levels³².

For low to moderate drinkers, motives for drinking are often related to wellbeing. Drinkers believe that alcohol^{77,78}:

- decreases inhibitions, improves self-confidence and social functioning
- increases fun and relaxation, improves mood
- enhances sexual experiences
- relieves boredom, stress and anxiety/depressive symptoms.

A commonly cited motive is building and maintaining relationships (ie, whanaungatanga) while drinking, which enhances connectedness and belonging, thereby improving wellbeing^{76,79}.

Is it the alcohol or the situation that has the positive influence?

In the moment, there is a positive relationship between happiness and drinking events. But that effect does not necessarily last throughout the entire event or spill over to other times⁸⁰.

Limited research has differentiated between the impacts of the alcohol itself, and the effect of the other enjoyable activities that coincide with drinking.

Often alcohol is consumed with friends, while eating or being entertained, and in social settings. It might be that the alcohol makes these times enjoyable but it is likely they could be as enjoyable without alcohol^{79,80}.

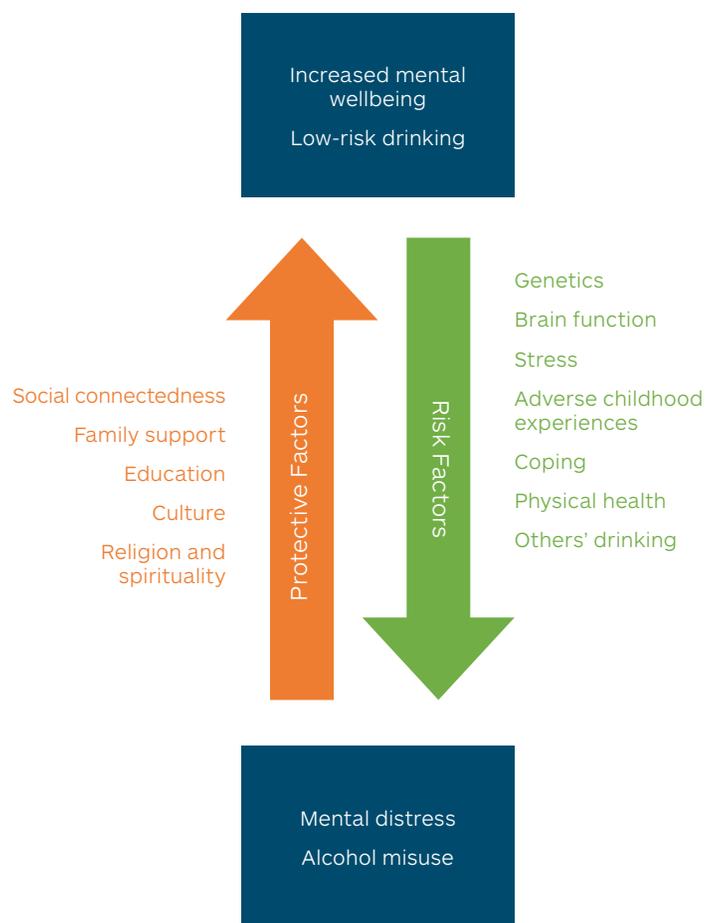
Reducing alcohol consumption improves wellbeing

A reduction in drinking (frequency and quantity), especially among those misusing alcohol is linked with improvements in^{34,81,82}:

- psychiatric episode frequency
- stress, anxiety and depressive symptoms
- pain
- mental quality of life and contentment
- self-confidence
- physical health and general functioning
- social functioning/relationships.

Common protective factors increase wellbeing and reduce alcohol misuse

There is evidence that a number of protective factors can reduce the risk of alcohol misuse at the same time as improving wellbeing. These protective factors may do so through enhancing identity, belonging, and connection.



Social connectedness

Social support, socialising and belonging typically make up social connectedness⁸³. Social connectedness is consistently a predictor of mental health with stronger connections linked to greater wellbeing.

Social relationships provide opportunities for support, belonging, and joy. Social connection and support can relieve harmful levels of stress, and improve coping. Feeling both connected to others and valued by them strengthens resilience. This reduces the likelihood that someone will turn to alcohol to cope.

The quality of social relationships is most important to wellbeing, not the quantity; the protective value of social connectedness only emerges when interactions are positive and pleasant.

The challenge is to encourage people to rely less on alcohol to facilitate these social connections and instead demonstrate alternatives⁸⁴.

Family support

Positive family relationships are consistently linked to better mental wellbeing and lower risk drinking⁸⁵.

For young people, family connectedness is the greatest predictor of mental wellbeing⁸³.

Family care and connection are protective in reducing depression and anxiety among adolescents^{86,87}. In particular, family support has value in reducing stressful transitions (eg, leaving school, moving out of the family home) and improving self-esteem.

Among children of parents with alcohol dependence, family factors including solid parent-child attachment, time with parents, family cohesion, accepting mothers, and high social support are protective against later mental distress and alcohol misuse⁸⁴.

It is important to note that when it comes to alcohol misuse, parental (and peer) influences have less effect during adulthood than they do in childhood and adolescence⁴⁰.

Education

School engagement (eg, positive staff/student relationships) is associated with better mental wellbeing and lower risk drinking among young people^{40,85}.

The school environment is able to increase students' sense of belonging and safety, offer supportive relationships, and raise expectations for individuals.

Schools with student-reported positive social climates have fewer students reporting problems with alcohol⁸⁸.

Culture

Cultural factors affect resilience among young adults⁸⁹. For example, among Māori (adolescents and adults), a strong sense of cultural identification and cultural efficacy is protective against mental distress as they provide strength, belonging, pride and support⁹⁰⁻⁹². This relates to access to and engagement with tikanga Māori (including knowledge of te reo Māori).

Culture is seen as a deterrent to alcohol misuse, often related to respect for tradition or for others in the community (eg, kaumātua)⁹³.

Strategies used in alcohol treatment services for Māori drinkers often draw on support from iwi, pride in cultural heritage, and strengthening cultural identity⁹⁰.

Religion and spirituality

The risk of depression and anxiety is less among individuals with religious involvement⁸⁶. Religious affiliation is also protective against alcohol use early in life, and later alcohol misuse⁸⁴. Both religiousness and spirituality are linked with less underage drinking.

Those high in religiosity or spirituality tend to expect less positive outcomes from alcohol consumption. The impact of religion might be partly around specific expectations of the denomination or rules about the sanctity of wellbeing.

For those who rate themselves high in spirituality, alcohol is often not seen as the best mechanism to regulate emotions or build connections⁹⁴.

The community membership, social integration, sense of belonging and social support that arises from being part of a community also cannot be overlooked⁹⁵.

Lessons

Limitations of the research

Conducting a high level review of the literature has identified gaps in the published evidence base and demonstrated that there are multiple limitations of the research in this space. The evidence is complex, with different definitions used for mental distress/wellbeing and for alcohol use, making it difficult to compare across studies. The level of consumption that makes drinking 'risky', 'hazardous', 'harmful' or 'heavy' is not the same across different studies. Similarly, 'depression' might mean depressed mood, symptoms of depression or

diagnosis of major depressive disorder. Accuracy makes a difference eg, when talking about anxiety, someone with social anxiety could be less likely to consume alcohol as they may avoid social environments, while someone with general anxiety could be more likely to consume alcohol to cope.

There is further complexity as alcohol use disorders are mental health disorders, and are also often grouped with substance use disorders. In the latter, the impact of alcohol compared to other substances is often not clear. This makes it difficult to determine whether it is the specific substance or the addiction itself that has the greatest impact.

The evidence base has a focus on adolescents, particularly in college settings, with less research available about the experiences of adults.

There is little published research that considers cultural differences in alcohol behaviours and mental wellbeing within New Zealand.

Much of the published research focuses on clinical issues. Subsequently, research often occurs in treatment settings. There is also a lot of cross-sectional research¹ which explains why there is limited proof of causality available.

Future research

The causal relationship between alcohol and mental wellbeing is not well understood. While there is greater understanding for some conditions (eg, depression) than others, there is not one clear pathway that connects alcohol consumption with mental wellbeing. In addition, there is much to learn about the combined impact of alcohol and mental distress.

Future research is required to:

- consider what the relationship between alcohol and mental wellbeing looks like for a greater range of populations (eg, Rainbow communities, communities with disabilities, different cultural groups etc.)
- consider cultural differences in alcohol behaviours and mental wellbeing within New Zealand (eg, Māori, Pacific peoples' focus)
- understand the impact of wider social determinants on alcohol consumption and mental distress (eg, impact of inequity, racism, social exclusion)
- explore additional personal risk and protective factors (eg, self-esteem, personality, sense of hope, being treated equitably)

- investigate specific consequences of low levels of alcohol consumption
- look at the relationship between alcohol use (rather than misuse) and mood, emotions, or worries (rather than severe distress)
- explicitly investigate whether interventions that improve wellbeing also serve to decrease alcohol consumption
- disentangle the impact of alcohol from the effect of the activities that occur alongside
- move beyond individual interventions to address the need for alcohol culture change.

Implications

The connection between alcohol and mental distress is something that health professionals (across primary health care and hospitals) and community service providers need to actively consider when working with individuals and communities.

Currently mental health and alcohol and other drug services have different approaches⁹⁶ yet there is overlap in the development and maintenance of these experiences that suggests collaboration would be beneficial⁹⁷. While there is some recognition of the link at the severe end, there is less acknowledgement at the lower end of the spectrum where early intervention can play a role in reducing long-term harms.

Gaining a better understanding of the risk and protective factors laid out in this Summary may also help in informing activities. For example, working with individuals and families on more effective coping strategies than turning to alcohol; or maximising opportunities for schools to work on engaging students, increasing belonging and enhancing wellbeing to provide support systems for students³³.

While much of the literature focuses on alcohol misuse, there is preliminary evidence to support that lower levels of alcohol consumption can affect an individual's mental wellbeing, particularly when considering young people's consumption and its impact later in life.

We need to acknowledge the link, recognise the risks and develop initiatives to address the modifiable factors at play. For example:

- Support initiatives to reduce stressors and enhance coping skills.
- Increase education and support for parents.
- Raise awareness of the effects of drinking during pregnancy.
- Enable schools and families to support youth during transitions.
- Review our drinking culture across Aotearoa New Zealand and improve regulations.
- Address norms and help communities to show situations can be fun without alcohol.

Alcohol misuse and significant mental distress start out as lower levels of drinking and mental distress symptoms. Early intervention at these lower levels has the potential to prevent long-term harms and enhance wellbeing.

Citation

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Methodology

Aims

Recently two reviews of the alcohol and mental health literature have been conducted in Australia and New Zealand^{1,20}. These reviews highlight some key issues.

- First, there is a body of evidence that has considered alcohol and mental distress.
- Second, this work is complex and not easy to interpret.
- Third, there is a gap in understanding the relationship between alcohol use and more holistic measures of mental wellbeing.

Subsequently, the aims of this Evidence Summary were:

1. to briefly summarise the relationship between alcohol use and mental distress
2. to present a high level review of literature connecting alcohol use and mental wellbeing.

Three main research questions were addressed:

1. What is the link between alcohol use and mental distress?
2. What is the relationship between alcohol use and mental wellbeing?
3. How does the relationship between alcohol use and mental wellbeing vary across the life course?

Some aspects of the relationship were considered out of scope, namely cognitive decline and dementia, medications and other drugs.

Process

Databases (eg, PubMed, Google Scholar) were searched for recent (2010-) systematic reviews and meta-analyses on alcohol and mental wellbeing.

Initial search terms included combinations of the following: alcohol, mental health, mental wellbeing, wellbeing, review, New Zealand. Predominantly clinical literature resulted from these searches.

A broader literature scan was therefore conducted, characterising 'mental wellbeing' in different ways.

Further searches included the following terms: psychological wellbeing, protective factors, risk factors, resilience, coping, mood, motives.

Where further clarification was needed on topics, specific searches were conducted eg, 'isolation, older people' or 'whanaungatanga, alcohol'.

Articles were restricted to publications in the English language. Papers were excluded if they focused on population groups with very specific needs (eg, veterans or prisoners) or were evaluating therapeutic interventions.

Snowballing was used to identify papers referenced in key reviews. Papers citing or similar to (as defined by PubMed) key reviews were also considered.

Grey literature sources were attained through simple Google searches.

Abstracts were reviewed and full papers sourced where relevant. Key themes emerging from the materials were drawn out for presentation in this Evidence Summary.

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